Remarks

The pending rejections are respectfully traversed.

Claims 1, 4, 9-10 and 14 are rejected as anticipated by the Yoshida reference.

However, all of the claims contain material limitation to as halftone screen, (claim 1, lines 5-6; claim 4, lines 12-15; claim 9, lines 9-17; claim 10 is dependent on claim 9; claim 14, 1, 5-6). Nothing in Yoshida addresses a halftone screen.

Page 8, lines 12-20 of the specification provide a review of halftone screening A grid of threshold values overlays the image data to provide shade variations. A dot in the halftone bitmap is turned on only if the continuous tone data value exceeds the threshold value.

Thus, a discussion of such halftone screening in a reference would be expected to have one or more of the terms: halftone, mask, gray scale, threshold array, dither or, possibly, continuous tone. Yoshida contains none of these terms.

For claim 1, the Official Action cites column 3, lines 19-28 of Yoshida as disclosing a halftone screen. But that teaches merely skew correction by incrementing line values.

For claim 4, the Official Action cites column 3, lines 16-18 of Yoshida as disclosing a halftone screen. However, that teaches dividing the image lines, which is used for skew correction.

For claim 9, the Official Action cites figure 5 and column 2, lines 18-22 of Yoshida as disclosing a halftone screen and column 2, lines 17-19 for applying a halftone screen to an image bytemap. However column 2, lines 17-19 and 18-22 teach

storing data for consecutive image lines and reading it out according to settings of the deskewing unit, which merely deskews by line values. Figure 5 is an illustration of a skewed line and unskewed lines.

Claim 10 is dependent on claim 9 and therefore necessary has the halftone screen limitation of claim 9.

For claim 14, the Official Action cites column 3, lines 19-28 of Yoshida as disclosing a halftone screen. But that teaches skew correction by incrementing line values.

The Official Action has statements that halftone screening is inherent in Yoshida. But the claims are not to any halftone screen used with deskewing. This specification apparently has complete novelty in teaching when and how to use halftone screening to reduce undesirable print artifacts with deskewing.

The Official Action rejects claims 2-3, 5-8 and 15-16 as obvious over Yoshida in view of the Cullen reference. Cullen is cited for the addition of text characters.

For claims 2 and 15, the Official Action cites column 5, lines 53-55 of Cullen for identifying text block and correcting the skew based on an associate skew angle. However, Cullen does not associate a text block with one other block and skew correct the text block by the correction factor of the one block. Cullen simply identifies text as a block and fully corrects the skew of that text block, whereas the claims require a correction based on the one block associated, which may not be a full correction.

The cited column 5, lines 53-55 of Cullen are entirely consistent with there being no such relation between blocks as it simply says that correction on the rectangles describing the features of the document is performed. The desirability is not recognized

in Cullen of deskewing a character based on the deskew factor of another block so that a character is not distored by being partly deskewed one amount and partly deskewed another amount.

The foregoing discussion with respect to claims 2 and 15 is equally applicable to the rejection of claim 5.

The rejection of claim 6 cites column 5, lines 46-48 of Cullen for associating a rectangle of text characters with a respective one of a plurality of blocks. It also cites column 5, lines 53-55 as does the rejection of claims 2 and 15. However, column 5, lines 46-48 of Cullen is only about using rectangles of words to estimate skew on the document. As discussed in details in the foregoing with respect to claims 2 and 15, Cullen does not associate a text block with one other block and skew correct the text block by the correction factor of the one block.

Claim 7 is dependent upon claim 6 and distinguishes over the rejection of it for the reasons discussed with respect to claim 6.

Claims 3, 8, and 16 are dependent upon claims 2, 6 and 15 respectively and distinguish over the rejection of them for the reasons discussed in this amendment with respect to claims 2, 6 and 15.

Claims 11-13 are rejected as obvious over Yoshida in view of Cullen and the Saund reference.

The rejection regarding claim 11 cites Yoshida for skew correction of bytemaps. Cullen is cited for dividing the image bit map into a plurality at blocks, for identifying a rectangle of text characters, and for associating the text rectangles with one block and correcting skew based on the associated skew angle. Column 5, lines 46-48 and 53-55

of Cullen are cited for the associating and for the correcting based on the associating. In response, however, column 5, lines 46-48 merely is about using rectangles of words to estimate skew on the document. Lines 53-55 are entirely consistent with their being no such relation between blocks as it simply states that correction on the rectangles describing the features of the document is performed.

This rejection also cites column 14, lines 51-57 of Cullen for different skew correction within a block. In response, however, it is respectfully submitted that column 14, lines 51-57 in no way discuss rotation of part of a rectangle.

Finally, Saund is cited for shifting a minority portion of each text character. In response, however, Saund is about reading text from a bound document. It employs information of the document shape to dewarp. This does not at all suggest deskewing by associating text with an image block as claimed.

The desirability is not recognized in any of the references of deskewing a character based on the deskew factor of another block so that a character is not distored by being partly deskewed one amount and partly deskewed another amount.

The rejection regarding claim 12 cites Yoshida for teaching a halftone screen. As discussed in detail in the foregoing discussion of the anticipation rejection of claims 1, 4, 9-10 and 14, Yoshida has no teaching at all of a halftone screen. Additionally, claim 12 is dependent on claim 11 and takes patentability for the reasons discussed with respect to claim 11.

Claim 13 is dependent on claim 11 and distinguishes over the rejection of it for the reasons discussed in this amendment with respect to claim 11.

Reconsideration is due course, followed by allowance of claims 1-16, all of the pending claims, is respectfully requested.

Respectfully submitted,
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